Art Unit:

INFORMATION DISCLOSURE CITATION IN AN APPLICATION

| Ref: A20-033CIP | Serial No: | 10/813,747 | |
|--------------------|------------|------------|--|
| Applicant: SIMMONS | S et al. | | |

| United States Patent Documents | | | | | | |
|--------------------------------|------------|-------|------|------|--------------------|---------------------|
| ng Date | Subclass I | Class | Name | Date | Document Number | Examiner Initial |
| | | | | | | |
| | | | | | | |

Filing Date: 03/29/2004

| | Foreign Patent Documents | | | | | | | |
|----------|--------------------------|---------------------|---------|-------|----------|--------|---------|--|
| Examiner | Publication | Publication | Country | Class | Subclass | Transl | ation . | |
| Initial | Number | Date | | | | Yes | No | |
| MUS | WO 01/04268 A1 | January 18, 2001 | | | | | • | |
| | | | - | | | | | |

| Examiner Initial | Other Documents (by Publication, Author, Date, Title, Pertinent Pages, etc.) | | | | |
|---------------------|---|--|--|--|--|
| Mas | SHI, S. et al (2001) "Comparison of Human Dental Pulp and Bone Marrow Stromal Stem Cells by cDNA Microarray Analysis" <i>Bone</i> , 29(6):532-539. | | | | |
| | JONES, E.A. et al (2002 "Isolation and Characterization of Bone Marrow Multipotential Mesenchymal Progenitor Cells" <i>Arthritis & Rheumatism</i> , 46(12):3349-60. | | | | |
| | GRONTHOS, S. et al (2002) "Stem Cell Properties of Human Dental Pulp Stem Cells" J. Dent. Res., 81(8):531-535. | | | | |
| Mus | Doherty, M.J. et al. (1998) "Vascular Pericytes Express Osteogenic Potential In Vitro and In Vitro" Journal of Bone and Mineral Research, 13:828-838. | | | | |

| | · · | | |
|-----------|------------------|---------|--|
| Examiner: | Date Considered: | 10/1/07 | |
| | | | |

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered; Include a copy of this form with next communication to the applicant.

| | 10- | 1449 Substitute U | J.S. Depa | | | | Application Number | 10/813,74 | |
|----------------------|--------------|--|---|--|---|---|---|---|-----|
| (JUI | L 2 j | P 2007 FION-DISCLOSURI | atent and | d Trad | lemark (| Office | Filing Date | March 29, 2007 | |
| | | FION DISCLOSUR shows if necessary) | E STATI | EMIEN | T | | First Named Inventor | Paul Simmo | ons |
| | 10EM | | | | | | Art Unit | 1644 | |
| | | | | | | | Examiner Name | M. Belyavs | ki |
| | | | | | | | A 44 (D - 1 - 4 N) | 75990- | |
| | | | | · · · · · · · · · · · · · · · · · · · | | | Attorney Docket No. | B/JPW/BJA | |
| | | T | | S. PAT | ENT DOC | UMENT | S | | |
| Examiner Initials | Cite No. | | | | tion Date D-YYYY | Nan | ne of Patentee or Applica | nt of Cited Documen | t |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | - | | | | |
| Examiner | Cite | Familian Datama | | REIGN P | | OCUMENT | | | |
| Initials | No.1 | | Kind Code ⁵ | (if known) | Publicati MM-DD | | Name of Pate Applicant of Cited | | T |
| | <u> </u> | L | | | | | | | |
| | l | | NON PATE | | | | | | |
| Examiner Initials | Cite No.1 | Include name of the aut (book, magazine, journal, | hor (in CAP , serial, sym | posium, | ETTERS), catalog, etc r country v | :.) date, par | article (when appropriat ge(s), volume-issue numbe shed. | e), title of the item er(s), publisher, city | T |
| | | | | | tound y | mere publi | | | |
| MIL | | Axelrad et al. Skeletal Repai 38S1:S49-S62 | , New r, Inj | Techr | nologi | es for | the Enhancem | ent of 07) | |
| MU | | Skeletal Repai | Mesen | Techrury, | Int. | es for J. Car m Cell | the Enhanceme Injured (20) | 07) | |
| MAS | | Skeletal Repai 38S1:S49-S62 Bruder et al., Bone Repair, a | Mesen nd Ske) 56:2 Osteo ramic (onecti | Techrury, chymaletal 83-29 genes Compo | nologi Int. | es for J. Car m Cell nerati Marro Trans | the Enhanceme Injured (20) s in Bone Deve on Therapy, J w-Derived Meseplanted Subcut Cell Retention | elopment, Cell enchymal taneously: | |
| | | Skeletal Repai 38S1:S49-S62 Bruder et al., Bone Repair, a Biochem; (1994 Dennis et al., Cell Porous Ce Effect of Fibr Rate of Osteog | Mesen nd Ske) 56:2 Osteo ramic (onecti | Techrury, chymaletal 83-29 genes Compo | nologi Int. | es for J. Car m Cell nerati Marro Trans | the Enhanceme Injured (20) s in Bone Deve on Therapy, J w-Derived Meseplanted Subcut Cell Retention | elopment, Cell enchymal taneously: | |
| | | Skeletal Repai 38S1:S49-S62 Bruder et al., Bone Repair, a Biochem; (1994 Dennis et al., Cell Porous Ce Effect of Fibr Rate of Osteog | Mesen nd Ske) 56:2 Osteo ramic (onecti | Techrury, chymaletal 83-29 genes Compo | nologi Int. | es for J. Car m Cell nerati Marro Trans | the Enhanceme Injured (20) s in Bone Deve on Therapy, J w-Derived Meseplanted Subcut Cell Retention | elopment, Cell enchymal taneously: | |
| | | Skeletal Repai 38S1:S49-S62 Bruder et al., Bone Repair, a Biochem; (1994 Dennis et al., Cell Porous Ce Effect of Fibr Rate of Osteog | Mesen nd Ske) 56:2 Osteo ramic (onecti | Techrury, chymaletal 83-29 genes Compo | nologi Int. | es for J. Car m Cell nerati Marro Trans | the Enhanceme Injured (20) s in Bone Deve on Therapy, J w-Derived Meseplanted Subcut Cell Retention | elopment, Cell enchymal taneously: | |

Applicants: Paul Simmons et al. Serial No.: 10/813,747

Filed: March 29, 2007

Exhibit A

10/813,747 U.S. Department of Commerce Application Number Form PTO-1449 Substitute March 29, Patent and Trademark Office Filing Date 2004 Paul Simmons INFORMATION DISCLOSURE STATEMENT First Named Inventor et al. (Use several sheets if necessary) Art Unit 1644 Examiner Name M. Belyavski 75990-Attorney Docket No. B/JPW/BJA **U.S. PATENT DOCUMENTS Document Number Publication Date** Cite Name of Patentee or Applicant of Cited Document Number-Kind Code² (If known) No.1 MM-DD-YYYY 2002-0085996 07-2002 NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item Cite Examiner Initials (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city No.' and/or country where published. Simmons and Gronthos (1991) Int'l J. Cell Cloning 9, page Mus 408 (abstract) Office Action issued January 12, 2005 in connection with U.S. Serial No. 10/030,411 Office Action issued June 28, 2005 in connection with U.S. Serial No. 10/030,411 Final Office Action issued January 9, 2006 in connection with U.S. Serial No. 10/030,411 Examiner Interview Summary issued June 27, 2006 in connection with U.S. Serial No. 10/030,411 Office Action issued April 20, 2007 in connection with U.S. MP Serial No. 10/955,709 **EXAMINER** SIGNATURE DATE CONSIDERED *EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'Applicant

is to place a checkmark here if English language Translation is attached.

Applicants: Paul Simmons et al.

Serial No.: 10/813,747 Filed: March 29, 2004

Exhibit A

10/813,747 Application Number Form PTO-14/49 LV.S. Department of Commerce JAN 2 2 2007 Filing Date March 29, 2004 Patent and Trademark Office Paul Simmons First Named Inventor et al. INFORMATION SURE STATEMENT 1644 Art Unit (Use several sheets if necessary) M. Belyavskyi Examiner Name Attorney Docket No. 75990-B/JPW/BJA **U.S. PATENT DOCUMENTS** Document Number Cite **Publication Date** Examiner Name of Patentee or Applicant of Cited Document Number-Kind Code² (if known) MM-DD-YYYY Initials No. 5,197,985 03-30-1993 US Caplan et al. HB US 5,226,914 07-13-1993 Caplan et al. US 5,486,359 01-23-1996 Caplan et al. US 5,591,625 01-07-1997 Gerson et al. US 5,811,094 09-22-1998 Caplan US 5,827,740 10-27-1998 Pittenger US 5,837,539 11-17-1998 Caplan et al. US 5,922,597 Verfaillie et al. 07-13-1999 US 5,980,887 11-09-1999 Isner et al. US 6,022,540 02-08-2000 Bruder et al. US 6,087,113 07-11-2000 Caplan et al. US 6,261,549 07-17-2001 Fernandez et al. US 6,322,784 07-17-2001 Pittenger et al. US 6,335,195 01-01-2002 Rodgers et al. US 6,387,367 05-14-2002 Davis-Sproul et al. US 6,387,369 05-14-2002 Pittenger et al. US 6,645,727 11-11-2003 Thomas et al. US 6,709,864 03-23-2004 Pittenger et al. US 6,875,430 04-05-2005 McIntosh et al. US 7,122,178 10-17-2006 Simmons et al. US 2004-0107453 06-03-2004 Furcht US 2006-0008452 01-12-2006 Simmons US 2005-0158289 07-21-2005 Simmons

| | | FOREIGN PA | ATENT DOCUMEN | TS | |
|----------------------|----|---|--------------------------------|--|----------------|
| Examiner Initials | | Foreign Patent Document Country Code ³ Number Kind Code ⁵ (If known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | T ⁶ |
| MB | WO | 01/011011 | 02-15-2001 | | |
| EXAMINEI SIGNATUR | | 12 | DATE CONSIDERED | 10/1/07 | |

12-22-2005

MB

US

2005-0281790

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds of Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO) Standard ST.3). * For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English Language Translation is attached.

Applicants: Paul Simmons et al.

Serial No.: 10/813,747 Filed: March 29, 2004

Exhibit A

Simmons

| Form P | ro-1 | 449 | U.S. Depart | ment of Commerce | Application Number | 10/813,747 | |
|----------------------|-------------|--|-------------------------|---|--------------------------------|---|----------------|
| | | | | Frademark Office | Filing Date | March 29, 2 | 2004 |
| | | | • | | First Named Inventor | Paul Simmor | ns |
| INFOR | TAN | TON DISCLOSU | RE STATEN | MENT | | et al. | |
| (Use sev | eral: | sheets if necessar | y) | | Art Unit Examiner Name | 1644 | , . |
| | | | | | Attorney Docket No. | M. Belyavs 75990-B/JPW | |
| | | | | | partorney Docket No. | 1/3330-B/JPW | / BUA |
| <u></u> | | | | T LITERATURE DOCUM | | | |
| Examiner Initials | Cite No. | Include name of the (book, magazine, jour | nal, serial, sympo | TAL LETTERS), title of the a sium, catalog, etc.) date, page and/or country where publish | (s), volume-issue number |), title of the item r(s), publisher, city | T ² |
| HUS | | Alberico et | al. (1987 |) Blood 69, page | 2 1120 | | |
| | | Allen, T.D., Lymphoid Dif 38-67 | "Microen ferentiat | vironments in Ha ion" CIBA Found. | emopoietic an Symposium 84 | d , pages | |
| | | Allen et al. | (1990) Ir | mmunol. Ser. 49, | page 1 | | |
| | | Allen et al. Immunol. Ser | (1990) "N . 49, page | Marrow Biology a | nd Stem Cells | " | |
| | | Anklesaria e | t al. (198 | 39) Blood 74, pa | ge 1144 | | |
| | | Anklesaria et page 7681 | t al. (198 | 37) Proc. Nat'l | Acad. Sci. US | A 84, | - |
| |] | Bennett et al | l. (1991) | J. Cell Sci. 99 | , page 131 | | |
| | 1 | Bentley (1982 | 2) Br. J. | Haematol 50, pag | ge 1 | | |
| | Į. | Castro-Malasp Bone Marrow F Progeny" Bloc | ibroblast | . (1980) "Chara Colony-Forming e 289-301 | cterization on Cells and The | f Human eir | |
| | ٤ | Castro-Malasp Stimulation of Blood 57, pag | of Prolife | . (1981) "Human ration of Bone N | Megakaryocyte Marrow Fibrob | e lasts" | |
| | r | Clarke, Emer, ceview) | "Mesench | ymal Cells" www. | .stemcell.com | (mini- | |
| MB | E | Dexter et al. Proliferation Physiol. 91 | of Haemo | Conditions Contr poietic Stem Cel 344 | colling the | J. Cell | |
| XAMINER IGNATURE | | 1/2 | 5 | DATE CONSIDERED | 10/1/07 | | |

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). Applicant is to place a checkmark here if English language Translation is attached.

| Form P | ro-1 | 449 U.S. Department of Commerce | Application Number | 10/813,747 | |
|-----------------------|--------------|---|---------------------------------|---|------|
| | | Patent and Trademark Office | Filing Date | March 29, 2 | 2004 |
| 1 | | and Hademark Office | First Named Inventor | Paul Simmor | |
| INFOR | мат | ION DISCLOSURE STATEMENT | Pirst Named Inventor | et al. | |
| 1 | | sheets if necessary) | Art Unit | 1644 | |
| Cose sev | ciai | sheets it necessary) | Examiner Name | M. Belyavs | |
| L | | | Attorney Docket No. | 75990-B/JPW | /BJA |
| | | NON PATENT LITERATURE DOCU | MENTS | | |
| Examiner Initials | Cite No.1 | Include name of the author (in CAPITAL LETTERS), title of the (book, magazine, journal, serial, symposium, catalog, etc.) date, pagand/or country where publi | e(s), volume-issue number |), title of the item r(s), publisher, city | T2 |
| MB | | Dexter et al. (1984) Kroc Found. Ser | . 18, pages 57 | '- 96 | |
| | | Fong et al. (1997) "Nonradioactive, Procedure for Telomeric Repeat Ampli BioTechniques 23, page 1029-1032 | | | |
| | | Friedenstein (1976) Int'l R. Cytolog | y 47, page 327 | | |
| | | Friedenstein (1980) "Stromal Mechani Cloning in Vitro and Retransplantati of Bone Marrow Transplantation, page | on in Vivo" Im | | |
| | | Friedenstein et al. (1970) Cell Tiss | ue Kinetics 3, | page 393 | |
| | | Friedenstein et al. (1992) Bone and I | Mineral 18, pa | ge 199 | |
| | | Gronthos, S., et al. (2003) J. Cell : 1835 | Sci. 116, page | s 1827- | • |
| | } | Gronthos, S., et al. (1994) "The STRO Human Bone Marrow Contains the Osteo 84, pages 4164-4173 | 0-1+ Fraction genic Precurso | of Adult rs, Blood | |
| | 1 | Gronthos, S., et al. (1995) Blood 85 | page 929 | | |
| | | Hellstrom et al. (1999) Development : | 26, page 2047 | | |
| | ļ | Huang and Terstappen (1992) Nature 36 | 50, page 745 | | |
| | | Keating et al. (1982) Nature 298, pag | je 280 | , | |
| MB |] | (im et al. (1994) Science 266, page 2 | 011 | | |
| EXAMINER SIGNATURE | | DATE CONSIDERED | 10/1/07 | | |

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). Applicant is to place a checkmark here if English language Translation is attached.

| Form P | ro 1 | 440 U.S. Dopostment of Communication | Application Number | 10/813,747 | | | | |
|----------------------|--------------------------|--|----------------------------|--|----------------|--|--|--|
| rorm P | ı U-1 | 449 U.S. Department of Commerce Patent and Trademark Office | Filing Date | March 29, 2 | 004 | | | |
| | | · | First Named Inventor | Paul Simmon | | | | |
| | | TION DISCLOSURE STATEMENT | Art Unit | 1644 | | | | |
| (Use sev | eral : | sheets if necessary) | Examiner Name | M. Belyavs | kyi | | | |
| | | | Attorney Docket No. | 75990-B/JPW/ | | | | |
| | | NON PATENT LITERATURE DOCUM | MENTS | | | | | |
| Examiner Initials | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the ar (hook, magazine, journal, serial, symposium, catalog, etc.) date, page and/or country where publish | (s), volume-issue numbe | e), title of the item r(s), publisher, city | T ² | | | |
| MB | | Knopse et al. (1966) Blood 28, page 3 | 98 | | | | | |
| | | Knopse et al. (1972) Blood 39, page 3 | 31 | | | | | |
| | | Lichtman (1981) Experimental Hematolo | gy 9, page 39 | 91 | | | | |
| , | | Long (1992) Experimental Hematology 2 | 0, page 288 | | | | | |
| | | MacManus and Weiss (1984) Blood 64, p | age 1036 | | | | | |
| | | McIntyre and Bjornson (1986) Exp. Hem | atol. 14, pag | je 833 | | | | |
| | | Miltenyi et al. (1990) Cytometry 11, page 231 | | | | | | |
| | | Owen (1985) Bone and Mineral Research 3, page 1 | | | | | | |
| | | Owen and Friedenstein (1988) CIBA Found. Symposium 136, page 42 | | | | | | |
| | | Perkins and Fleischman (1990) Blood 75, page 620 | | | | | | |
| | | Piersma et al. (1983) Br. J. Haematol | . 54, page 28 | 5 | 7 | | | |
| | | Rothstein et al. (1985) Blood 65, page | e 744 | | | | | |
| | | Simmons and Gronthos (1991) Int'l J. (408 (abstract) | Cell Cloning | 9, page | | | | |
| MB | i | Simmons, P.J., et al. (1994) "Isolational Functional Activity of Human Marro in Hemopolesis" Advances in Bone Marro Processing: Pourth Int'l Symposium 389 | ow Stromal Prow Purging an | ogenitors d | | | | |
| EXAMINER IGNATURE | | DATE CONSIDERED | 10/1/07 | | | | | |

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). Applicant is to place a checkmark here if English language Translation is attached.

| Form P | ro-1 | 449 | U.S. Departmen | t of Commerce | Application Number | 10/813,747 | |
|----------------------|--------------|------------------------------|--|---|--------------------------------|--|-----|
| | . 0-1 | 77/ | Patent and Trac | | Filing Date | March 29, 2 | |
| INIDAD | - ، بر | NON BIOG | | | First Named Inventor | Paul Simmor | |
| I . | | | LOSURE STATEMEN | T | Art Unit | 1644 | |
| (Use sev | erai | sheets if ne | cessary) | | Examiner Name | M. Belyavs | kvi |
| | | | | | Attorney Docket No. | 75990-B/JPW | |
| | | | NON PATENT LI | TERATURE DOCUM | MENTS | | |
| Examiner Initials | Cite No.1 | Include nam (book, magazi | e of the nuthor (in CAPITAL I ne, journal, serial, symposium, and/o | ETTERS), title of the a catalog, etc.) date, page r country where publish | (s), volume-issue number |), title of the Item (s), publisher, city | T |
| MB | | Simmons | et al. (1987) Na | ture 328, pag | ge 429 | | |
| | | Simmons | and Torok-Storb | (1991) Blood | 78, page 55 | | |
| | | Simmons | and Torok-Storb | (1991) Blood | 78, page 2848 | | |
| · | | Tavassol 195 | i and Friedenste | in (1983) Ann | . J. Hematol. | 15, page | |
| | | Tavassol | i and Crosby (19 | 58) Science 1 | 61, page 54 | | |
| 4 | | Cytotoxi Hematopo | al. (1988) "Long c Treatment: Ster iesis: Long-Term n" Hematol. 8, pa | Cells and M Effects of C | icroenvironme | nt in | |
| | | Van Vlas | selaer et al. (19 | 94) Blood 84 | , page 753 | | |
| | | Waller e | t al. (1995) Bloc | od 85, page 24 | 422 | | |
| | I | Weiss (1 | 976) Anatomical R | ecord 186, pa | age 161 | | |
| МВ | | Zoltowska 49, pages | a et al. (2001) A s 59-61 | rch. Immunol | . Ther. Exp. | (Warsz) | |
| | | | 8 | | | | |
| XAMINER IGNATURE | | | | E CONSIDERED | 10/1/0) | | |
| EXAMINE! | l: Initi: | al if citation consi | dered, whether or not citation is in | conformance with MPEP 60 | 09: Draw line through citation | n if not in conforman | ce |

TEXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'Applicant is to place a checkmark here if English language Translation is attached.